

GUIDE TO ANSI/ASSP Z459.1-2021

An Overview of the New Rope Access Safety Standard



AMERICAN SOCIETY OF
SAFETY PROFESSIONALS

STANDARDS



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INTRODUCTION

On June 24, 2021 the American National Standards Institute [ANSI] announced the approval of the Z459.1 rope access standard titled:

ANSI/ASSP Z459.1-2021 SAFETY REQUIREMENTS FOR ROPE ACCESS SYSTEMS

This standard sets forth accepted practices for rope access work. It is applicable for use in any environment where ropes are suspended from or connected to a structure or natural feature and used as the primary means of access, egress or support and as the primary means of secondary protection against a fall.





"The spectrum of work that you can perform using rope access techniques is virtually unlimited. ANSI/ASSP Z459.1 has everything from program management for supervisors and employers, to equipment selection and rigging for the qualified person, to inspection of rigging and techniques for the competent person to methodologies for the authorized person."

– Loui McCurley, chair of Z459.1 Rope Access Safety Committee





WHAT IS ROPE ACCESS?



Rope access is a method of working at height, typically using synthetic fiber kernmantle ropes and associated equipment, used to gain access to, be supported at and as a means of egress from a place of work. It is a viable means of achieving 100% fall protection as long as program requirements, the system of work applied by competent technicians, and component and element requirements are adequately met.

Supporting and enabling users of rope access to achieve this complete system of work, in which program management, equipment, competence and supervision are equally important, is the primary intent of this standard. The absence or failure of any part of the complete work system can reduce safety or even render the entire rope access program null.

History

This standard is the first edition to address rope access. It is intended to enhance and build upon the language found in earlier editions of ANSI/ASSP Z359.1 regarding rope access. In the case of conflicting information, this document should take precedence.

Standard Perspective

This standard is intended for use by all persons concerned with the use of rope access methods for work at height, including technicians, safety managers, specifiers, rope access supervisors,

purchasing personnel, trainers, clients and regulatory authorities.

In the spirit of encompassing an as-yet undeveloped area of fall protection standards, this document addresses:

- Program Requirements
- System Requirements, and
- Component and Element Requirements

Equipment specifications and performance criteria for systems, subsystems and components used in rope access methods are covered in this standard as they relate to both the rope access progress system and the rope access backup system. Requirements for adequate training and verification of knowledge and skills through pre-planning efforts prior to the initiation of the job address the needs of both the rope access technician and their manager(s). This standard establishes criteria relevant to rope access program requirements, system requirements, component and element requirements, and personnel requirements for rigging and training.

ANSI/ASSP Z459.1 is overseen by the ANSI Z359 Committee. The Z359 Committee solicits public input that may suggest revisions to the standard. Such input should be sent to the Secretariat, American Society of Safety Professionals, 520 N. Northwest Highway, Park Ridge, Illinois 60068.



What does the standard include:

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ASSP FALL PROTECTION RESOURCES AND MATERIALS

Historical Materials

ASSP has several resources addressing the history of development of the standard. These materials are meant to give a feel for how the standard was developed. It is important to note that there were some changes and edits to the final standard during the time these materials were released or broadcast:

[ANSI ASSP Z459 1 Rope Access Q&A Session](#)

Loui McCurley as Z459.1 Subgroup Chair [From 2019]

[Department of the Navy Fall-Protection Guide](#)

[From 2017: See Page 259 for an example of how the Navy has referred to the standard]

[Good Practice Guideline: Working at Height in the Offshore Wind Industry, Second Edition](#)

[From 2018: See Page 139 for an example of how the standard has referred to the standard]

ANSI/ASSP Fall Protection and Fall Restraint Resources

Working at height is a hazardous job, one that exposes workers to falls to lower levels, falls through roofs or floor openings, falling objects and falls due to structure collapses.

The ANSI/ASSP Z359 fall protection and fall restraint standards address fall protection equipment and systems for work positioning, fall arrest, rescue, evacuation and other fall hazards. These standards also address training, and how to identify and abate hazards to prevent injuries when working at height.

Safety professionals can use the standards in the Z359 Fall Protection Code to address a wide range of fall protection and fall restraint requirements in the workplace. Using the guidance in these standards, safety professionals can understand the requirements for personal fall arrest systems, various lanyards, self-rescue systems, full-body harnesses, self-retracting devices, anchorage connectors; develop a comprehensive managed fall protection program; and design active fall protection systems.





Related Standards

[ANSI/ASSP Z359 Fall Protection and Arrest Standards Package](#)

[ASSP Z359.0-2018 Z359 Committee Guidance Document for Definitions and Nomenclature Used in Z359 Fall Protection and Fall Restraint Standards](#)

[ANSI/ASSP Z359.1 - 2020 The Fall Protection Code - Digital Only](#)

[ANSI/ASSP Z359.2 – 2017 Minimum Requirements for a Comprehensive Managed Fall Protection Program](#)

[ANSI/ASSP Z359.3-2019 Safety Requirements for Lanyards and Positioning Lanyards](#)





[ANSI/ASSP Z359.4-2013 Safety Requirements for Assisted-Rescue and Self-Rescue Systems, Subsystems and Components](#)

[ANSI/ASSP Z359.6-2016 Specifications and Design Requirements for Active Fall Protection Systems](#)

[ANSI/ASSP Z359.7-2019 Qualification and Verification Testing of Fall Protection Products](#)

[ANSI/ASSP Z359.9-2019 Qualification and Verification Testing of Fall Protection Products](#)

[ANSI/ASSP Z359.11-2021 Safety Requirements for Full Body Harnesses](#)

[ANSI/ASSP Z359.12-2019 Connecting Components for Personal Fall Arrest Systems](#)

[ANSI/ASSP Z359.13-2013 Personal Energy Absorbers and Energy Absorbing Lanyards](#)



[ANSI/ASSP Z359.14-2021 Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems](#)

[ANSI/ASSP Z359.15-2014 Safety Requirements for Single Anchor Lifelines and Fall Arresters for Personal Fall Arrest Systems](#)

[ANSI/ASSP Z359.16-2016 Safety Requirements for Climbing Ladder Fall Arrest Systems](#)

[ANSI/ASSP Z359.18-2017 Safety Requirements for Anchorage Connectors for Active Fall Protection Systems](#)

[ANSI/ASSP Z459.1-2021 Safety Requirements for Rope Access Systems](#)

More Information on Z359

ASSP Article [Four Steps of Designing an Effective Fall Protection System](#)

ASSP Podcast Episode 7: [Protecting Workers at Height](#) | Kevin Denis, ANSI/ASSP Z359 Committee

ASSP Podcast Episode 17: [ANSI/ASSP Z359.7 Standard](#) | Kevin Denis, ANSI/ASSP Z359 Committee

ASSP Podcast Episode 23: [The Fall Protection Code](#) | Thom Kramer, ANSI/ASSP Z359 Committee

ASSP Podcast Episode #59: [Full Body Harnesses: Staying Secure at Height](#) | Rob Willis, Chair Z359.11 Subcommittee

ASSP Podcast Episode #67: [What the Z459.1 Standard Means for Rope Access Systems](#) | Loui McCurley, Chair of the ANSI/ASSP Z459.1 Subcommittee

[Z359 Bulletin on Anchorage Certification](#)
[Z359.14 Bulletin](#)



Access Fall Protection Resources [Here](#)

Fall protection has historically been a top 10 OSHA citation and falls are a leading cause of fatalities in the construction industry. Our resources can help you address this challenge by understanding how to properly design, implement and use fall protection systems.

Links and Information Related to Standards Development

Please note there are not any examples yet of public/private use and recognition of ANSI/ASSP Z459.1 since the standard is new and there will not be any specific actions taken at this point.

Links and information related to American National Standards:

[Essential Requirements Used by ANSI](#)

The links below explain how voluntary national consensus standards are used in regulatory settings.

[Voluntary consensus standards can transform your safety program from a compliance-driven cost center into a corporate sustainability initiative that can save lives and boost profits](#)

ASSP Podcast Episode 3: [How Government Agencies Use Industry Consensus Standards](#) | Lauren Bauerschmidt, ASSP standards development

ASSP Podcast Episode 1: [Industry Consensus Standards](#) | Tim Fisher, ASSP standards and technical services

ANSI/ASSP standards promote recognized best practices that prevent worker injuries, illnesses and fatalities



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